

REMARKS

This Amendment is in response to the Office Action dated May 12, 2009. Applicant respectfully requests reconsideration and allowance of all pending claims in view of the above-amendments and the following remarks.

I. **ABSTRACT**

The Abstract is objected to as including legal phraseology. Enclosed with this Amendment is a replacement Abstract in which terms such as “comprising” and “said” are replaced with terms such as “including” and “the”, as suggested by the Examiner.

With these amendments, the objection to the Abstract can be withdrawn.

II. **DRAWINGS**

The drawings were objected to for not showing certain features of appearing in the claims.

With this Amendment, a new replacement sheet “1/2” is submitted in which figures 2 and 3 are amended to illustrate the “raised portion”, the “extractor” and the “pad”. Support for these amendments can be found on page 10, lines 20-22 and on page 11, lines 1-4 and 9-11, for example. These paragraphs have been amended to include appropriate reference numerals. Since these features were described in the specification as originally filed, the amendments to figures 2 and 3 are believed not to include new matter. Applicant respectfully requests that the proposed amendments be entered if the Office agrees no new matter has been added.

Specifically, Applicant has added several dashed lines 74 in FIG. 2 representing, for example, the grooves described in the specification. FIG. 3 is amended to add a dashed line 82 representing the pad described in the specification and a box 100 representing the extractor described in the specification.

III. **CLAIM OBJECTIONS**

Claims 1-20 were objected to various informalities. Enclosed is and amended set of

claims 1-20, in which :

- new claims 1, 15 and 19 include features of claim 8 as filed and precise that the air conditioner comprises " a turbofan making it possible to pulse air into the evaporation chamber via a distribution box " ;
- claim 8 is cancelled ;
- terms "with a view to being" are changed to "and" in claims 1, 15 and 19, as suggested by the Examiner ;
- terms "this surface" are changed to "the surface" in claims 1, 15 and 19, as suggested by the Examiner ;
- term "slaving" is changed to "connecting" in claims 17 and 18, as suggested by the Examiner ; and
- various other minor informalities have been corrected.

Applicant believes these amendments overcome the objections to claims 1-19.

IV. CLAIM REJECTIONS UNDER §102 AND 103

A. **Section §102 Rejections**

Claims 1, 6-8, 16, 17 and 20 are rejected as being allegedly anticipated by PEER U.S. Patent No. 3,978,174.

PEER discloses an evaporative air conditioner comprising an evaporation chamber in which air is pulled under action of a central fan positioned inside a cylindrical filter. This cylindrical filter is centrally mounted in the evaporation chamber.

According to amended claim 1, a turbofan pulses the air into the evaporation chamber.

Futhermore, PEER discloses a discharge nozzle positioned to discharge water onto a vaporizer disc, which expels water droplets in direction of a ring member. Then, the water droplets drop downwardly into the evaporation chamber. Water droplets are then mixed with air to be transformed in mist.

According to amended claim 1, water is introduced in the evaporation chamber directly in mist form by mister.

So, amended claim 1 (and similarly independent claims 16 and 20) are novel in view of PEER.

The respective dependent claims may also add features that are novel in view of PEER.

B. Section 103 Rejections

Claim 2 is rejected under §103(a) as being allegedly unpatentable over PEER in view of KELLEY U.S. Patent No. 5,361,600.

Claims 1-6, 8, 9, 16, 17 and 20 are rejected under §103(a) as being allegedly unpatentable over LYON U.S. Patent No. 4,360,368 in view of PEER.

Claims 10-12 are rejected under §103(a) as being allegedly unpatentable over LYON in view of PEER, and further in view of GOETTI U.S. Patent No. 3,147,319.

Claim 13 is rejected under §103(a) as being allegedly unpatentable over LYON in view of PEER, and further in view of CALVERT U.S. Patent No. 5,606,868.

Claims 14 and 15 is rejected under §103(a) as being allegedly unpatentable over LYON in view of PEER, and further in view of KELLEY.

Claims 18 and 19 are rejected under §103(a) as being allegedly unpatentable over LYON in view of PEER, and further in view of MECKLER U.S. Patent No. 5,954,577.

1. Non-obviousness of Amended claims 1, 16 and 20

a) **Technical problem**

With PEER or LYON, air and water are mixed in the evaporation chamber in a vortex action as shown by arrows 134 in PEER (figure 4) and as shown in LYON (figure 3).

When air passes through the filter member, the speed of the airflow decelerates. This tends to reduce the run-off of water over the surface of the filter element and, consequently, limit the cleaning of the filter. The air passed in the cabin is purified inefficiently. Moreover, the humidification of the filter element may be inefficient enough to refresh the air passed in the cabin.

An exemplary, but non-limiting, problem to be solved is to improve purification and cooling of the air passed in the cabin.

b) **Non-Obviousness**

According to an exemplary aspect of the present disclosure, this objective may be achieved by a deflector of air and at least one injector of mist, such that the air and the mist converge towards a run-off device (a mist spray cone being thus optimally pointed in direction of the run-off device and filter element), with the result being that run-off action is more optimized and that the filter element is impregnated by water.

In other words, water run-off on the filter element and impact with the filter element at such a speed make it possible to impregnate the filter element. A double action (purification and cooling) is thus obtained with great efficiency, for example.

This double action is due to, for example, the position of the deflector in relation with the at least one injector such that the water is expelled in the evaporation chamber in a direction that converges with the airflow at an outlet of the deflector.

Such an implementation is neither suggested by PEER or LYON.

In both PEER and LYON, the water is pulsed in the evaporation chamber in a general direction perpendicular to the stream of air.

It is not possible with PEER or LYON to generate a mist spray cone as it is obtained with an exemplary embodiment of the claims of the present application.

All pending claims are both new and non-obvious in view of the cited references.

V. FUNCTIONAL LANGUAGE

In Section 14 of the Office Action, the Examiner lists several phrases allegedly including functional language. Applicant respectfully believes that these phrases do in fact represent structural limitations of the claimed apparatus.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /David D. Brush/

David D. Brush, Reg. No. 34,557
900 Second Avenue South, Suite 1400
Minneapolis, Minnesota 55402-3319

Phone: (612) 334-3222 Fax: (612) 334-3312

DDB:kmm